

GenCore version 5.1.4\_p5\_4578  
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OM protein - protein search, using sw model

Run on: March 17, 2003, 07:20:40 ; Search time 7.9771 Seconds  
(without alignments)  
228.975 Million cell updates/sec

Title: US-09-787-082-9

Perfect score: 119

Sequence: 1 CCNPNVCHLEHSLNCTGG 19

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR\_73: \*  
1: pir1: \*  
2: pir2: \*  
3: pir3: \*  
4: pir4: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	96	80.7	16	2 A59046	alpha-conotoxin MI
2	54	45.4	160	2 T25185	hypothetical prote
3	49.5	41.6	151	2 T20071	hypothetical prote
4	49	41.2	399	2 T38388	hypothetical wd-40
5	48.5	40.8	644	2 A36325	epidermal growth f
6	48.5	40.8	894	2 T27007	hypothetical prote
7	48.5	40.8	1210	2 A53183	epidermal growth f
8	48	40.3	16	2 A59042	alpha-conotoxin Ep
9	48	40.3	379	2 T16213	APX-1 protein homo
10	48	40.3	589	2 B38128	epithelin/granulin
11	47	39.5	18	1 A58589	alpha-conotoxin EI
12	47	39.5	566	2 S19307	carboxylesterase (
13	46.5	39.1	728	2 I50719	C-Delta-1 - chick
14	46	38.7	54	2 A31436	ovomucoid, third d
15	45.5	38.2	159	2 T33696	hypothetical prote
16	45	37.8	16	2 A59045	alpha-conotoxin Au
17	45	37.8	506	2 S50937	hypothetical prote
18	45	37.8	878	2 B71460	probable outer mem
19	45	37.8	2907	2 A57278	fibrillin-2 precur
20	45	37.8	2918	2 A54105	fibrillin-2 precur
21	44.5	37.4	294	2 T23682	hypothetical prote
22	44.5	37.4	434	2 C27827	S-locus-specific g
23	44.5	37.4	686	2 JC7569	Delta-4 protein -
24	44.5	37.4	1101	2 T16840	hypothetical prote
25	44.5	37.4	1203	2 A49175	Watch B protein -
26	44.5	37.4	2471	2 A49128	cell-fate determin
27	44	37.0	16	2 C59045	alpha-conotoxin Au
28	44	37.0	16	2 B54877	alpha-conotoxin Pn
29	44	37.0	49	2 I48946	cellular disinteg

30 44 37.0 423 2 AC3553 4-aminobutyrate tr  
31 44 37.0 527 2 T01019 transport protein  
32 44 37.0 689 2 T42760 fibulin, splice fo  
33 44 37.0 712 2 T42990 fibulin\_1, splice  
34 44 37.0 798 2 T22793 hypothetical prote  
35 44 37.0 1582 2 T15308 hypothetical prote  
36 43.5 36.6 986 1 OYURGA speract receptor p  
37 43 36.1 124 2 AG2339 hypothetical prote  
38 43 36.1 222 2 G87523 cell division App-  
39 43 36.1 337 2 T18431 hypothetical prote  
40 43 36.1 357 2 S23403 sperm surface prot  
41 43 36.1 366 2 C87624 alcohol dehydrogen  
42 43 36.1 513 2 D88991 protein apx-1 [imp  
43 43 36.1 525 2 B48058 RNA-binding protei  
44 43 36.1 586 2 S19381 hypothetical prote  
45 43 36.1 719 2 S25237 homeotic protein H

#### ALIGNMENTS

##### RESULT 1

A59046

alpha-conotoxin MII - cone shell (Conus magus)

C:Species: Conus magus (magus cone)

C>Date: 16-Jul-1999 #sequence\_revision 16-Jul-1999 #text\_change 16-Jul-1999

C:Accession: A59046

R:Cartier, G.E.; Yoshikami, D.; Gray, W.R.; Luo, S.; Olivera, B.M.; McIntosh, J.M.

J. Biol. Chem. 271, 7522-7528, 1996

A:Title: A new alpha-conotoxin which targets alpha3beta2 nicotinic acetylcholine rec

A:Reference number: A59046; MUID:96205934; PMID:8631783

A:Accession: A59046

A>Status: preliminary

A:Molecule type: protein

A:Residues: 1-16 <CAR>

C:Superfamily: alpha-conotoxin

C:Keywords: acetylcholine receptor inhibitor; amidated carboxyl end; postsynaptic neu

F:1-16/Product: alpha-conotoxin MII #status experimental <MAT>

F:2-8,3-16/Disulfide bonds: #status experimental

F:16/Modified site: amidated carboxyl end (Cys) #status experimental

Query Match 80.7%; Score 96; DB 2; Length 16;  
Best Local Similarity 100.0%; Pred. No. 1.6e-06;  
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCNPNVCHLEHSLNLC 15

DB 2 CCNPNVCHLEHSLNLC 16

##### RESULT 2

T25185

hypothetical protein T23F6.1 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C>Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999

C:Accession: T25185

R:Lilovd, C.

submitted to the EMBL Data Library, November 1996

A:Reference number: Z19992

A:Accession: T25185

A>Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: DNA

A:Residues: 1-160 <WIL>

A:Cross-references: EMBL:Z83127; PIDN:CAB05630.1; GSPDB:GN00022; CESP:T23F6.1

A:Experimental source: clone T23F6

C:Genetics:

A:Gene: CESP:T23F6.1

A:Map position: 4

A:Introns: 76/3; 124/3

Query Match

Best Local Similarity 45.4%; Score 54; DB 2; Length 160;

Matches 10; Conservative 55.6%; Pred. No. 3.3;

Mismatches 1; Mismatches 3; Indels 4; Gaps 1;

QY 2 CSNPVCHLEHSNLTNGG 19  
| ||| : || || ||  
Db 113 CCQPCV----TNACTNGG 126

## RESULT 3

T20071

hypothetical protein C49F5.5 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 18-Feb-2000

C:Accession: T20071

R:Lloyd, C.

submitted to the EMBL Data Library, November 1996

A:Reference number: Z19219

A:Accession: T20071

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-151 &lt;WIL&gt;

A:Cross-references: EMBL:Z81485; PIDN:CAB03976.1; GSPDB:GNO00028; CESP:C49F5.5

A:Experimental source: clone C49F5

C:Genetics:

A:Gene: CESP:C49F5.5

A:Map position: X

A:Introns: 36/2; 72/3; 115/1

Query Match

Best Local Similarity 41.6%; Score 49.5; DB 2; Length 151;

Matches 10; Conservative 1; Mismatches 6; Indels 5; Gaps 1;

QY 2 CSNPVC-----HLEHSNLTNG 18

| | | | | | | | | | | | | | | |

Db 89 CDLPSCGLFKYTLSHLNWCTNG 110

## RESULT 4

T38388

hypothetical wd-40 repeat protein - fission yeast (Schizosaccharomyces pombe)

C:Species: Schizosaccharomyces pombe

C:Date: 03-Dec-1999 #sequence\_revision 03-Dec-1999 #text\_change 03-Dec-1999

C:Accession: T38388

R:Devlin, K.; Churcher, C.M.; Barrell, B.G.; Rajandream, M.A.; Wood, V.

submitted to the EMBL Data Library, August 1997

A:Reference number: Z21737

A:Accession: T38388

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-399 &lt;DEV&gt;

A:Cross-references: EMBL:Z98944; PIDN:CAB11604.1; GSPDB:GNO00066; SPDB:SPAC25H1.08c

A:Experimental source: strain 972h-; cosmid c25H1

C:Genetics:

A:Gene: SPDB:SPAC25H1.08c

A:Map position: 1

Query Match

Best Local Similarity 41.2%; Score 49; DB 2; Length 399;

Matches 10; Conservative 1; Mismatches 1; Indels 4; Gaps 1;

QY 4 NPVCHLEHSNLTNGG 19

| | | | | | | | | | | | | | | |

Db 70 NPV----HSNLCASGG 81

## RESULT 5

A36325

epidermal growth factor receptor - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 25-Jan-1991 #sequence\_revision 25-Jan-1991 #text\_change 10-Oct-1997

C:Accession: A36325

R:Petch, L.A.; Harris, J.; Raymond, V.W.; Blasband, A.; Lee, D.C.; Earp, H.S.

Mol. Cell. Biol. 10, 2973-2982, 1990

A:Title: A truncated, secreted form of the epidermal growth factor receptor is encoded b

A:Reference number: A36325; MUID:90258888; PMID:2342466

A:Accession: A36325

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-644 &lt;PET&gt;

A:Cross-references: GB:M37394

C:Superfamily: epidermal growth factor receptor; protein kinase homology

C:Keywords: alternative splicing; ATP; growth factor receptor

Query Match

Best Local Similarity 40.8%; Score 48.5; DB 2; Length 644;

Matches 10; Conservative 2; Mismatches 3; Indels 1; Gaps 1;

QY 3 SNPVCHEHSNLTNG 18

: | | | | | | | | | | | | | |

Db 613 ANNVCHLCHAN-CTYG 627

## RESULT 6

T27007

hypothetical protein Y48B6A.11 - Caenorhabditis elegans

C:Species: Caenorhabditis elegans

C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999

C:Accession: T27007

R:Wall, M.

submitted to the EMBL Data Library, September 1999

A:Reference number: Z20297

A:Accession: T27007

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-894 &lt;WIL&gt;

A:Cross-references: EMBL:AL110490; NID:e1542263; PIDN:CAB54451.1; CESP:Y48B6A.11

A:Experimental source: clone Y48B6A

C:Genetics:

A:Gene: CESP:Y48B6A.11

A:Introns: 71/2; 146/2; 510/1; 558/2

Query Match

Best Local Similarity 40.8%; Score 48.5; DB 2; Length 894;

Matches 10; Conservative 3; Mismatches 3; Indels 3; Gaps 2;

QY 2 CSNPVCHLE-HSNLTNGG 19

| | | | | | | | | | | | | | | |

Db 592 CSN--CHVTVSHCCSGGG 608

## RESULT 7

A53183

epidermal growth factor receptor precursor - mouse

C:Species: Mus musculus (house mouse)

C:Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 18-Jun-1999

C:Accession: A53183; A43818; S24942; A28941; S45325; I49643

R:Luetkeke, N.C.; Phillips, H.K.; Qiu, T.H.; Copeland, N.G.; Earp, H.S.; Jenkins, N.A.

Genes Dev. 8, 399-413, 1994

A:Title: The mouse waved-2 phenotype results from a point mutation in the EGF receptor

A:Reference number: A53183; MUID:94170986; PMID:8125255

A:Accession: A53183

A:Molecule type: mRNA

A:Residues: 1-1210 &lt;LUE&gt;

A:Cross-references: GB:U03425

R:Avivi, A.; Lax, I.; Ullrich, A.; Schlessinger, J.; Givol, D.; Morse, B.

Oncogene 6, 673-676, 1991

A:Title: Comparison of EGF receptor sequences as a guide to study the ligand binding

A:Reference number: A43818; MUID:91232866; PMID:2030916

A:Accession: A43818

A:Molecule type: mRNA

A:Residues: 1-714 &lt;AVI&gt;

A:Cross-references: GB:X59698

R:Eisinger, D.P.; Serrero, G.

submitted to the EMBL Data Library, June 1992

A:Reference number: S24942

A:Accession: S24942

A:Molecule type: mRNA

A:Residues: 969-971,'K',973-1115,'D' &lt;EIS&gt;

A;Cross-references: EMBL:Z12608  
R;Heisermann, G.J.; Gill, G.N.  
J. Biol. Chem. 263, 13152-13158, 1988  
A;Title: Epidermal growth factor receptor threonine and serine residues phosphorylated  
A;Reference number: A28941; MUID:88330814; PMID:3138233  
A;Accession: A28941  
A;Molecule type: protein  
A;Residues: 689-694, 'X', 696-704, 'L', 706-707, 989-992, 'XX', 995-996, 'X', 998-1000; 1002-1009,  
R;Hibbs, M.L.; Dunn, A.R.; Alexander, W.S.  
submitted to the EMBL Data Library, April 1994  
A;Description: The complete cDNA sequence of the Mouse Epidermal Growth Factor Receptor  
A;Reference number: S45325  
A;Accession: S45325  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-971, 'K', 973-1210 <VER>  
A;Cross-references: EMBL:X78987; NID:g488830; PIDN:CAA55587.1; PID:g488831  
R;Faria, B.C.; Bas, S.K.; Andrews, G.K.; Dey, S.K.  
Proc. Natl. Acad. Sci. U.S.A. 90, 55-59, 1993  
A;Title: Expression of the epidermal growth factor receptor gene is regulated in mouse  
A;Reference number: I49643; MUID:93126380; PMID:7678348  
A;Accession: I49643  
A;Status: translated from GB/EMBL/DBJ  
A;Molecule type: mRNA  
A;Residues: 12-20, 22-132 <RES>  
A;Cross-references: GB:L06864; NID:g193001; PIDN:AAA53029.1; PID:g567201  
C;Genetics:  
A;Gene: EGFR  
C;Superfamily: epidermal growth factor receptor; protein kinase homology  
C;Keywords: ATP; growth factor receptor; kinase-related transforming protein; phosphop  
F;1-24/Domain: signal sequence #status predicted <SIG>  
F;648-670/Domain: transmembrane #status predicted <TM>  
F;712-977/Domain: protein kinase homology <KIN>  
F;720-728/Region: protein kinase ATP-binding motif  
F;680,695/Binding site: phosphate (Thr) (covalent) #status experimental  
F;697,1070,1071/Binding site: phosphate (Ser) (covalent) #status experimental  
F;993/Binding site: (or 997) phosphate (Ser) (covalent) #status experimental  
F;1028/Binding site: (or 1030 or 1032) phosphate (Ser) (covalent) #status experimental  
F;1197/Binding site: phosphate (Tyr) (covalent) #status experimental

Query Match 40.8%; Score 48.5; DB 2; Length 1210;  
Best Local Similarity 62.5%; Pred. No. 82;  
Matches 10; Conservative 2; Mismatches 3; Indels 1; Gaps 1;

QY 3 SNPVCHLEHSLCTNG 18  
:|||||:|  
Db 613 ANNVCHELAN-CTYG 627

RESULT 8  
A59042  
alpha-conotoxin Epi - cone shell (Conus episcopatous)  
C;Species: Conus episcopatous (bishop's cone)  
C;Date: 23-Jul-1999 #sequence\_revision 23-Jul-1999 #text\_change 13-Aug-1999  
C;Accession: A59042  
R;Loughnan, M.; Bond, T.; Atkins, A.; Cuevas, J.; Adams, D.J.; Broxton, N.M.; Livett, B.  
J. Biol. Chem. 273, 15667-15674, 1998  
A;Title: Alpha-conotoxin Epi, a novel sulfated peptide from Conus episcopatous that sele  
A;Reference number: A59042; MUID:98288307; PMID:9624161  
A;Accession: A59042  
A;Status: preliminary  
A;Molecule type: protein  
A;Residues: 1-16 <LOU>  
C;Superfamily: alpha-conotoxin  
C;Keywords: acetylcholine receptor inhibitor; amidated carboxyl end; postsynaptic neuro  
F;1-16/Product: alpha-conotoxin Epi #status experimental <MAT>  
F;2-8,3-16/Disulfide bonds: #status experimental  
F;15/Binding site: sulfate (Tyr) (covalent) #status experimental  
F;16/Modified site: amidated carboxyl end (Cys) #status experimental

Query Match 40.3%; Score 48; DB 2; Length 16;  
Best Local Similarity 40.0%; Pred. No. 3.6;  
Matches 6; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 CCNPNVCHLEHSLC 15  
|||||:|  
Db 2 CCSDPRCMNPNPDYC 16

RESULT 9  
T16213  
APX-1 protein homolog - Caenorhabditis elegans  
C;Species: Caenorhabditis elegans  
C;Date: 20-Sep-1999 #sequence\_revision 20-Sep-1999 #text\_change 18-Feb-2000  
C;Accession: T16213  
R;Bentley, D.  
submitted to the EMBL Data Library, May 1996  
A;Description: The sequence of C. elegans cosmid F31A9.  
A;Reference number: Z18479  
A;Accession: T16213  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-379 <BEN>  
A;Cross-references: EMBL:U58738; NID:g1326302; PID:g1326305; PIDN:AAB00603.1; GSPDB:  
A;Experimental source: strain Bristol N2; clone F31A9  
C;Genetics:  
A;Gene: CESP:arg-1  
A;Map position: X  
A;Introns: 92/1; 133/2; 174/1; 225/1; 307/1; 342/3

Query Match 40.3%; Score 48; DB 2; Length 379;  
Best Local Similarity 44.4%; Pred. No. 40;  
Matches 8; Conservative 2; Mismatches 8; Indels 0; Gaps 0;

QY 2 CCNPNVCHLEHSLCTNG 19  
|||||:|  
Db 171 CSSNIKFCSHONPCANG 188

RESULT 10  
B38128  
epithelin/granulin precursor - rat  
C;Species: Rattus norvegicus (Norway rat)  
C;Date: 10-Jul-1992 #sequence\_revision 10-Jul-1992 #text\_change 20-Aug-1999  
C;Accession: B38128; A36199; B36199; E36698; I53272  
R;Plowman, G.D.; Green, J.M.; Neubauer, M.G.; Buckley, S.D.; McDonald, V.L.; Todaro,  
J. Biol. Chem. 267, 13073-13078, 1992  
A;Title: The epithelin precursor encodes two proteins with opposing activities on ep  
A;Reference number: A38128; MUID:92317004; PMID:1618805  
A;Accession: B38128  
A;Molecule type: mRNA  
A;Residues: 1-589 <PLO>  
R;Shoyab, M.; McDonald, V.L.; Byles, C.; Todaro, G.J.; Plowman, G.D.  
Proc. Natl. Acad. Sci. U.S.A. 87, 7912-7916, 1990  
A;Title: Epithelins 1 and 2: Isolation and characterization of two cysteine-rich gro  
A;Reference number: A36199; MUID:91045907; PMID:2236009  
A;Accession: A36199  
A;Molecule type: protein  
A;Residues: 280-300 <SHO>  
A;Accession: B36199  
A;Molecule type: protein  
A;Residues: 205-226 <SH2>  
R;Bateman, A.; Belcourt, D.; Bennett, H.; Lazure, C.; Solomon, S.  
Biochem. Biophys. Res. Commun. 173, 1161-1168, 1990  
A;Title: Granulins, a novel class of peptide from leukocytes.  
A;Reference number: A36698; MUID:91097544; PMID:2288320  
A;Accession: E36698  
A;Molecule type: protein  
A;Residues: 279-307, 'SB', 310-324, 'T', 326, 'X', 328, 'Q' <BAT>  
R;Bhandari, V.; Giald, A.; Bateman, A.  
Endocrinology 133, 2682-2689, 1993  
A;Title: The complementary deoxyribonucleic acid sequence, tissue distribution, and  
A;Reference number: I53272; MUID:94062640; PMID:8243292  
A;Accession: I53272  
A;Status: preliminary; translated from GB/EMBL/DBJ



C:Accession: T33696  
R:Miller, N.; Wamsley, P.  
submitted to the EMBL Data Library, October 1998  
A:Description: The sequence of C. elegans cosmid F49F1.  
A:Reference number: Z21389  
A:Accession: T33696  
A>Status: Preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: DNA  
A:Residues: 1-159 <MIL>  
A:Cross-references: EMBL:AF100656; PIDN:AAC68956.1; GSPDB:GN00022; CESP:F49F1.5  
A:Experimental source: strain Bristol N2; clone F49F1  
C:Genetics:  
A:Gene: CESP:F49F1.5  
A:Map position: 4  
A:Introns: 40/2; 77/2; 128/2

Query Match 38.2%; Score 45.5; DB 2; Length 159;  
Best Local Similarity 44.4%; Pred. No. 44;  
Matches 8; Conservative 2; Mismatches 7; Indels 1; Gaps 1;

QY 1 CCSNPVC-HLEHSNLCN 17  
| | | | |  
Db 123 CYENPICPHWAANGCTN 140

Search completed: March 17, 2003, 07:27:29  
Job time : 8.9771 secs

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